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strip of
~~stream~~ tickets 50 from dispensing path 57 in response to
 pressure exerted by ~~the~~ burster wheel 68. This slight
 deflection provides a highly advantageous and novel
 alignment system in accordance with the present invention.
 The alignment system operates as follows.

In order for burster wheel 68 to effectively burst ~~the~~
 leading ticket 54 from stream tickets 50 at line of weakness
 56, it must be sufficiently aligned with lines of weakness
 56 *at least close to the line.*
~~so as to exert pressure almost directly thereon.~~

~~Clearly, if burster wheel 68 is brought into bursting~~
~~contact with leading tickets 54 at a middle portion thereof,~~
~~leading tickets 54 will either be torn or bent and almost~~
~~certainly will not be properly dispensed.~~ A separate

alignment mechanism, discussed below, is ~~effective~~ *used* to bring
 line of weakness 56 to within at least a predetermined
 incremental distance of bursting position 70. *Even*
~~but even~~

within this incremental distance it is still advantageous to
 have line of ~~weakness~~ *weakness* 56 precisely aligned with bursting
 position 70 for best results. *As in any such system*
~~Furthermore, all systems will~~

there is ~~have~~ a certain amount of slippage and tolerance, *which tends to prevent perfect alignment*
~~However,~~
~~in accordance with the present invention, the very action of~~

burster wheel 68 in combination with ~~upper and lower~~ exit
 rollers 64, 66 and ~~upper and lower~~ feed rollers 60, 62

provides a mechanical alignment to ~~remove~~ *correct* any errors within
 the incremental distance. *IF* (Specifically, as illustrated in

Fig. 8A, the force from burster wheel 68 is exerted at
 bursting position 70 along the direction of arrow A. In
 Fig. 8A, it is assumed that line of weakness 56 has fallen
 short of bursting position 70 by a distance a. Since the

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force from burster wheel 68 is not exerted directly on ^{the} line of weakness 56, ^{the tickets} ~~line of weakness 56~~ will not immediately begin to burst apart but instead ~~tickets 52 and 54~~ will be deflected slightly ^{downwardly from} ~~from dispensing path 57, as indicated in a solid line,~~ and will tend to bend first at ^{the} line of

weakness 56 into a V shaped configuration indicated in ^{lines in the drawings.} ~~dashed line.~~ Consequently, tickets 52 and 54 will tend to slip ^{longitudinally along the} ~~along dispensing path 57~~ so as to bring the low point of the V-shaped ^{ticket-array} ~~into contact with burster wheel.~~ ^{the} In Fig. 8A, ^{the ticket strip 50 moves} ~~tickets 52 and 54 will tend to move~~ in the direction of

arrow B, ~~feeding forward stream of tickets 50~~ ^{the} until line of weakness 56 is properly aligned with bursting position 70.

Correspondingly, as shown in Fig. 8B, when ^{the} line of weakness 56 is slightly in advance of ^{the} bursting position 70 by

distance b, the force of burster wheel 68 will cause ^{the strip 50} ~~tickets 52 and 54~~ to move slightly along the dispensing path in the direction of arrow C, ^{reverse-feeding the strip} ~~reverse feeding stream of tickets 50~~ to again bring line of weakness 56 into precise alignment

with bursting position 70. This is an advantage of the burster mechanism ^{or} ~~in accordance with~~ the present invention ~~which is totally unavailable in any prior systems using a cutting blade to separate tickets or the like from a stream and represents an important feature of the present invention.~~ ^{reflected slightly downward.}

^{It} ~~It will be clear that if~~ tickets 49 are always of a predetermined, uniform length, the position of burster wheel 68 along dispensing path 57 could be predetermined and the mechanical self-alignment action just described could be sufficient to maintain proper alignment. The system

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according to the present invention has the additional
 feature, however, of accepting and dispensing tickets of
 different lengths and includes an alignment mechanism for
 bringing line of weakness 56 to within at least a
 predetermined incremental distance of bursting position 70
 regardless of the length of tickets 49. ^{new PP} (As illustrated in
 Fig. 5, a ticket sensor 76 is positioned along dispensing
 path 57 at a sensing position 78 downstream from bursting
 position 70 and upstream of ^a ~~the~~ ^{the} ~~upper and lower~~ exit rollers 64, ^{and}
 66. Ticket sensor 76 operates as a leading edge detector to
 detect the leading edge 80 of leading ticket 52 (Fig. 6)
 after the previous leading ticket has been separated and
 dispensed by the action of upper and lower exit rollers 64,
 66 while ^a ~~the~~ ^{the} ~~upper and lower~~ feed rollers 60, 62 are held
 stationary. ^{new PP} (As shown in Fig. 6, ticket sensor 76 ^{is} ~~may be~~ a
 conventional optical sensor having a U-shaped cavity 82
 through which ^a ~~stream of tickets~~ ^{the ticket strip} 50 passes to interrupt a
 light beam supplied to a light sensor 84. In accordance
 with known principles, light sensor 84 will detect the light
 beam from the time when the previous leading ticket is
 dispensed until the time that leading edge 80 of leading
 ticket 52 enters cavity 82 to interrupt the light beam. The
 distance between ticket sensor 76 and bursting position 70
 is predetermined in the construction of ^a ~~remote~~ ^{the dispensing} unit 14. If
 this predetermined distance is, for example, 1/2 inch and
 tickets 49 are identified as 2 inches long, then detection
 of leading edge 80 will indicate that ^a ~~stream~~ ^{the strip} of tickets 50
 must be driven an additional 1 1/2 inch to bring line of
 weakness 56 to bursting position 70. The spacing of ^a ~~upper~~

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~~and lower~~ exit rollers 64, 66 relative to ~~upper and lower~~
 feed rollers 60, 62 is advantageously such that both leading
 ticket 52 and next following ticket 54 will be respectively
 gripped thereby regardless of the length of leading ticket
 52. The length of tickets 49 may therefore vary ~~from fan~~
~~fold to fan fold~~, but only within a predetermined range, for
 example, 1-1/4 inches to 2 inches. The length may be
 entered on control panel 32 by actuation of length load
 push-button 38 if tickets of different lengths are being
 sold, or may be set by ^{the} central computer 12. Of course, if
 longer or shorter tickets are to be used, the relative
 positions of feed rollers 60, 62, exit rollers 64, 66,
 bursting position and sensing position 78 may be adjusted.

This creates the appropriate gripping of ~~stream of tickets~~ ^{the ticket strip}
 50 by the two pairs of rollers, ^{Wider} although ~~wider~~ spacing may
 be acceptable depending on the rigidity of tickets 49.

^{Referring now to figures 5 and 7,}
 In order to achieve the proper movement of stream
 of tickets 50 to bring line of weakness 56 to bursting
 position 70, the illustrated embodiment uses an alignment

mechanism including a code wheel 86 and code wheel sensor
 88. In accordance with known techniques, code wheel 86 is
 divided into a plurality of divisions 90 each corresponding
 to a ^{single} ~~same~~ predetermined incremental distance of ticket
 movement along dispensing path 57. Code wheel sensor 88

detects the rotation of code wheel 86 through each division
 90 and produces a pulse in ^{Figure 5} response thereto. As shown in ^{Figure 5}

^{and the} Fig. 7, ^{the} code wheel is mounted on the same shaft 97 as ^{the} upper
~~and lower~~ feed rollers ⁶⁰ ~~62 and 64~~ which move ^{the} ~~stream of~~
 ticket ^{strip} 50. Code wheel 86 will therefore measure each

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incremental distance moved by stream of tickets 50 and control circuit 40 counts the number of pulses to permit movement of ~~stream~~ ^(Figure 10) ~~of~~ ^{strip} tickets 50 by the appropriate distance to bring line of weakness 56 to bursting position 70.

Control circuit 40 also determines the direction of movement, since stream of tickets 50 will need to be forward fed or reverse-fed, depending on the particular unit 14 and the length of tickets 49. For example, if the predetermined incremental distances is 1/4 inch and stream of tickets 50 must be moved 1 1/2 inches in the forward direction to bring line of weakness 56 into bursting position 70, feed rollers 60, 62 are driven forwardly until code wheel 86 produces six pulses, moving the stream of tickets 50 forwardly for six incremental distances to total 1 1/2 inches. In ^{actuality} ~~a practical~~ ~~embodiment~~, the incremental distance will generally be much smaller than 1/4 inch, and the number of pulses provided will be correspondingly much greater so as to provide sufficient accuracy of alignment. Code wheel 86 is controlled to produce the proper number of pulses by control circuit 40 in response to the previously-entered ticket length setting stored therein. It will be apparent that tickets of a greater or lesser length may readily be accommodated by producing a greater or fewer number of pulses from code wheel 86.

Fig. 7 is a more structurally complete illustration of the ticket drive and bursting assembly. In particular, it will be seen that drive motor 72 operates through a gear train including gears 92 and 94 to drive lower feed 62 directly and upper feed roller 60 thereby,

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^{the}
~~while~~, "kick-out" motor 74 drives lower exit rollers 66 ^{at}
 directly through a gear train partially illustrated in gear
 96, ^{upper exit rollers 64 are driven by rollers 66} ~~and upper exit roller 64 thereby~~. ¹ Code wheel 86 is shown
 mounted on the same shaft 97 on which upper feed roller 60
 is mounted to provide an accurate measurement of ticket
 displacement. Although driven lower feed roller 62 may slip
 while stream of tickets 50 is stationary, upper feed roller
 60 is rotated only when stream of tickets 50 moves, thereby
 providing an accurate output from code wheel 86. ^{BP} Burster
 wheel 68 is shown mounted on a burster block 98 driven by a
 burster motor 100 through a cable spool arrangement 102
 including tensioning spring 104. When burster block 98 is
 moved from the illustrated rest position towards
 interception with dispensing path 57 through the action of
 cable spool device 102, burster wheel 68 will come into
 contact with stream of tickets 50 at the side thereof
 initially and then across stream of tickets 50 to burst the
 same apart. Limit switches 106, 108 provide respective
 indications of the limit positions for burster block 98 to
 prevent burster block 98 from crashing into the side of the
 mechanism. ^{BP} Burster block 98 is moved from right to left to
 burst ^{the} ~~one~~ leading ticket ⁵² ~~54~~, then left to right to burst the
 next leading ticket 54, and so on. Limit switches 106, 108
 will therefore indicate the position of burster block 98
 after each bursting motion. Thus, each bursting motion of
 burster block 98 from left to right or right to left
 represents the separation of a single ticket 49 and so may
 be used to digitally count the number of tickets sold. Each
 bursting motion may be sensed through one of limit switches

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106, 108 or by a separate sensor, and control circuit 40 is responsive thereto to increment the number of tickets sold as part of the stored sales data. The longest contemplated ticket length which may be input on control panel 32 is selected to be less than twice the shortest contemplated ticket length. For instance, the shortest length may be 1 1/4 inches while the longest length is 2 inches. This is a security measure to prevent a dishonest employee from setting the stored length to twice the actual ticket length, thus dispensing two tickets for each bursting motion of burster block 98. Of course, if the length is set only at central computer 12 or only with a special access code at control panel 32, this length limitation is unnecessary.

IMPRINTING

In accordance with a further aspect of the present invention, vendor identification data, such as the name and address of the sales agent, is automatically printed on each ticket 49 prior to dispensing. This assists the customer if he has any complaints by identifying where and from whom he bought the ticket, or if the particular game permits only the sales agent who sold ticket 49 to redeem it. This is also useful in detecting fraud should ^{dispensing} remote unit 14 be stolen and set in operation at another location. ^{As}

illustrated in Fig. 9, an imprinter assembly 110 includes an imprinter roller 112 including an impression of the vendor identification data, a pressure roller 114 in driving contact with imprinter roller 112 on the opposite side of dispensing path 57 so as to receive stream of tickets 50 ~~drivingly~~ therebetween, and an inker roller 116 in rolling contact with imprinter roller 112 so as to provide an ink

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supply thereto. Imprinter assembly 110 is not driven by any motor, but rather imprinter and pressure rollers 112, 114 are rotated by the motion of ^{the strip} ~~stream~~ of tickets 50

therebetween, while inker roller is rotated by the rotation of imprinter roller 112 to bring the impression on imprinter roller 12 into inked contact at least once with each ticket 49. Of course, the position of the inked contact on ticket 49 will depend on the length thereof, but the diameter of imprinter roller 112 is calculated so that the vendor identification data will appear at least once on each ticket 49 within the predetermined range of ticket lengths.

ACCESS MONITORING

A further security feature of unit 14 is intended to alert the sales agent to theft of tickets normally stored in unit 14. As mentioned above, the tickets are normally stored in a fan-fold stack 51 in storage area 58 of unit 14.

Storage area 58 is accessible only through a normally closed locked door 118 (Fig. 4). ^{Case lower right-hand portion of Fig. 10)} A lid switch 120 ^(Fig. 10) is connected to ^{the} door 118 and to control circuit 40 so as to detect each opening of ^{the} door ~~118~~ permitting access to the interior storage area 58 to remove tickets therefrom and deposit tickets therein. Each such opening may cause an alarm to sound and is also recorded in control circuit 40.

^{Operation} ~~and operation~~ of an access control push-button 38 on control panel 32 will produce a print-out of the number of openings

each day on the tape ²⁴ ~~also used to provide the reports~~

~~through slot 39~~. The sales agent, being financially responsible for each ticket received from the state authority, will be aware of each time he has opened door 118 to deposit tickets. Therefore any additional openings will

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indicate to the sales agent that someone else has been tampering with unit 14 and provides an additional security check. Such an access detecting system may also be applied to a locked drawer or other area in which tickets may be stored.

CONTROL CIRCUIT

a Fig. 10 is a functional ^{block} diagram of control circuit 40 in unit 14 and the various devices and systems which it controls through software and firmware. Briefly reviewing the previously discussed features, modem 20 provides the conduit for message data from central computer 12 over the phone lines and the sales data from unit 14 stored in the memory ¹²² ~~118~~. Proceeding counterclockwise from modem 20, the sales data, accounting data and the like are stored in memory 122, advantageously in the form of a random access memory. ^{HP} Lid switch 120 which detects each opening of door 118 provides its data to memory ¹²² ~~118~~. Key switch 124 detects the three different positions of key 44 and provides a signal to modem 20 to permit communication between modem 20 and unit 14 only in the communication mode, and signals to exit or "kick-out" motor 74, drive motor 72 and burster motor 100 to permit dispensing of tickets in the normal and communication modes. ^{HP} Code wheel 86 receives signals from leading edge ticket sensor 76, which also provides a feed-jam alarm signal an exit jam alarm signal. Burst position limit switches 106, 108 similarly provide a burst-jam alarm signal should the burster assembly become inoperative, as well as a count of tickets sold.

Customer LCD display 46 and operator LCD display 42 may be controlled through keypad 37 to blink or scroll

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the respective messages. Operator LCD display 42 is also adapted to display error messages generated by control circuit 40 in response to various alarm signals, such as those generated by lid switch 120, ticket sensor 86, etc.

new #
→ 40
 Control panel keypad 37 is operative to send signals to all the various devices, while beeper 126 provides an alarm indication for a variety of error conditions, including an electrical ~~brown out sensed by brown out~~ ^{"brown-out" sensed by brown-out} sensor 128, a lid opening sensed by lid switch 120, jam alarms from drive motor 72, burst motor 100 and burst limit switches 106, 108, a printer paper empty sensor ¹²⁹ ~~128~~ and in response to operation of keypad 37.

It is contemplated that the sales agent will redeem certain types of winning tickets and will deposit the money from all sales into a cash register. Such a cash register may be electronic and connected to control circuit 40 through an RS-232 cable 130 to automatically record this type of sales data. An additionally, an external sign may also be attached to control circuit 40 by RS-232 cable 130 to receive the same type of advertising messages as displayed on customer LCD display 46. For example, the external sign may be mounted outside the store where unit 14 is located.

Fig. 11 is a more detailed electronic block diagram corresponding to functional block diagram Fig. 10 and illustrates the currently contemplated best mode circuit elements for implementing the difference devices and operations of control circuit 40 and unit 14.

Figure 12 is a FLOW CHART
 flow chart illustrating a control program 200 for unit 14 in performing some of the above-described

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a functions ~~is illustrated in Fig. 12.~~ In accordance with known techniques, a CPU 150 (Fig. 11) within control circuit 40 executes control programs such as program 200 out of a read-only memory (ROM) 152. Control program 200 starts at step 201 and thereafter in steps 202, 203 and 204, determines whether CPU 150 has received an input from keypad 37, an input from central computer 12 or an input through another portion of control circuit 40 from the various devices connected thereto. Otherwise, control proceeds to another portion of program 200 to perform a function not illustrated in Fig. 12. At step 202, if an input was received from keypad 37, program 200 proceeds to step 205, wherein it is determined whether a ticket number command has been received, ordering the dispensing of N tickets. If such a ticket number command has been received, program 200 proceeds to step 206 wherein stream of tickets 50 is moved to bring line of weakness 56 to bursting position 70, with a following ticket being printed during such movement. In step 207, leading ticket 52 is burst from next following ticket 54 and in step 208 the dispensing of another ticket is recorded as sales data. In step 209, it is determined whether N tickets have been dispensed and if not, control returns to step 206 so that the next leading ticket 52 may be dispensed. If N tickets have been dispensed in step 209, control returns to step 202. In step 205, if a ticket number command has not been received, program 200 proceeds to step 210 wherein it is determined whether the length L of the tickets needs to be set. If so, in step 211 the new length is stored and control returns to

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step 202. If at step 210 it is determined that some other command has been entered from keypad 37, control proceeds to another portion of program 200 (not illustrated) where such command may be executed.

If instead of an input from keypad 37, an input from central computer 12 has been received, then program 200 proceeds from step 203 to step 212 to determine whether an accounting procedure is to be followed. If so, program 200 proceeds to step 213, wherein sales data may be transmitted to central computer 12 and/or accounting data may be calculated, and then control returns to step 202. Of course, accounting data may also be calculated at other times without a specific input from central computer 12. On the other hand, if at step 212 it is determined that something other than an accounting procedure is to follow, program 200 proceeds to step 214 wherein it operates in response to any message or other data received from central computer 12 to display a message and to operate under the control of central computer 12 to perform the commanded function, and thereafter control returns to step 202.

If it is determined at step 204 that an input is received from some device connected to control circuit 40, program 200 proceeds to step 215 wherein it determines whether lid switch 120 has detected the opening of door 118 to ticket storage area 58. If so, control proceeds to step 216 wherein the alarm may be sounded and the access to ticket storage area 58 is recorded. If at step 215 control program 200 determines that some other input has been received from devices connected to control circuit 40,

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program 200 proceeds to step 217 wherein the appropriate action recognizing an error, displaying an error message, sounding an alarm or other appropriate action is taken, whereafter control returns to step 202.

Fig. 12 illustrates only some of the functions of unit 14 and illustrates those only in very general terms. It will be understood by one skilled in the art that the order of some of the steps in program 200 may be altered, with additional steps being added to handle the additional functions described above and to include further functions consistent with the described operation of unit 14.

The above description has been given on a single preferred embodiment of the system and method for distributing lottery tickets in accordance with the present invention, and it will be apparent to one skilled in the art that many modifications and changes may be made without departing from the spirit or scope of the present invention. For instance, the burster mechanism is advantageous for all types of tickets and the like stored in a fan-fold stream. Also, the unit could be adapted for Lotto-type games by the addition of a card reader and controllable printer receiving the separated tickets, or the unit could be adapted as a player-activated terminal, for example in an isolated area. Therefore, the scope of the present invention should be determined by reference to the appended claims.

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CLAIMS

1. A system for distributing lottery tickets, comprising:
central data processing means:
a plurality of remote units for dispensing lottery tickets, each said remote unit including memory means for storing sales data indicating at least a number of lottery tickets dispensed by the respective remote unit; and
communication means actuatable for selectively placing said data processing means in communication with at least one said remote unit, said remote unit transferring said sales data to said data processing means and said data processing means transferring at least message data to said remote unit through the communication means.
2. A system according to claim 1, wherein said communication means includes dial-up modem means.
3. A system according to claim 1, further comprising actuating means at said data processing means for actuating said communication means at selected intervals.
4. A system according to claim 1, wherein said communication means is actuated at least once a day.
5. A system according to claim 1, further comprising actuating means at each said remote unit for automatically actuating said communication means at selected intervals.
6. A system according to claim 1, wherein said central data processing means transmits the same message data to all said

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remote units.

7. A system according to claim 6, wherein said message data transmitted to all said remote units includes advertising data.

8. A system according to claim 1, wherein said central data processing means transmits respective message data to respective ones of said remote units.

9. A system according to claim 8, wherein each said remote unit generates respective accounting data in response to the respective sales data stored therein.

10. A system according to claim 9, wherein said central data processing means automatically transmits respective message data related to said respective sales data to the respective remote unit at predetermined intervals.

11. A system according to claim 9, wherein said data processing means includes means for generating an accounting data request signal, said communication means being operable upon actuation for transmitting said accounting data request signal to said remote unit and said remote unit being responsive to said accounting data request signal for transmitting said respective sales data to said data processing means.

12. A system according to claim 1, wherein each said remote unit includes printing means for providing a printout in response to the received message data.

13. A system according to claim 1, wherein each said remote unit includes message display means for presenting a display in response to the received message data.

14. A system according to claim 13, wherein each said

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remote unit includes a dispensing outlet at which the dispensed lottery tickets are removeable, and wherein said message display means is located adjacent said dispensing outlet.

15. A method of distributing lottery tickets, comprising the steps of:

dispensing lottery tickets at a plurality of remote rotations,

memorizing, at each said remote location, sales data indicating at least a number of lottery tickets dispensed at the respective location;

transferring said memorized sales data from at least one said remote location to a central data processing location over an electronic communication system; and

transferring message data from said central data processing location to said remote location over said system.

16. A method according to claim 15, wherein said step of transferring said memorized sales data is performed only at selected times.

17. A method according to claim 15, wherein said step of transferring message data includes transferring the same message data to all said remote units.

18. The method of claim 15, wherein said step of transferring message data includes transferring respective message data to respective ones of said remote locations.

19. A method according to claim 18, further comprising the step of calculating at said central data processing location

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accounting data in response to the respective sales data transferred from respective ones of said remote locations.

120. Apparatus for dispensing lottery tickets, comprising:

a box-like module having opposed front and back surfaces;

ticket storage means within said module for storing a plurality of lottery tickets;

a control panel means mounted at said front surface of said module and being ^{actuatable} ~~actuable~~ for initiating dispensing of a lottery ticket;

a dispensing outlet manually accessible at said back surface for receiving a dispensed lottery ticket from said ticket storage means; and

ticket dispensing means responsive to said control panel means for dispensing a lottery ticket from said ticket storage means to said dispensing outlet, whereby said dispensed lottery ticket may be manually removed from said apparatus.

21. Apparatus according to claim 20, wherein said control panel means is actuatable to generate a ticket number specification signal indicating a selected number of tickets, said ticket dispensing means being responsive to said ticket number specification signal to dispense said number of tickets.

22. Apparatus according to claim 21, wherein said ticket number specification signal specifies one ticket.

23. Apparatus according to claim 21, wherein said ticket number specification signal specifies a plurality of tickets.

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Sub 25 24. Apparatus according to claim 21, wherein said lottery tickets stored within said ticket storage means are connected, and wherein said dispensing means includes means for separating tickets to be dispensed from the remaining tickets. *a*

25. Apparatus according to claim 20, wherein said tickets stored within said ticket storage means are connected in a fan-fold stream, said lottery tickets being separated from each other along lines of weakness, and said separating means separating said lottery tickets along said lines of weakness.

26. Apparatus according to claim 25, wherein said separating means separates said tickets by bursting said lines of weakness. *a*

5 27. Apparatus according to claim *21*, wherein said module further includes message display means mounted at said back surface adjacent said dispensing outlet.

Sub 26 28. Apparatus according to claim 27, further comprising central data processing means selectively placeable in communication with said module for transmitting at least message data thereto, said message display means being responsive to said message data to display a message indicative thereof. *a*

7 29. Apparatus according to claim *28*, wherein said module includes a second message display means mounted at said front surface adjacent said control panel means, said central data processing means further transmitting control message data to said module and said second message display means being responsive to said control message data to display a control message indicative thereof. *6*

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Sub-claim 30
B' 30. Apparatus for dispensing tickets, comprising:

ticket storage means for storing a plurality of tickets connected in a fan-fold stream headed by a leading ticket, said tickets being separable from each other along lines of weakness;

transport means for feeding said stream of tickets from said ticket storage means along a predetermined dispensing path; *u*

separation means for separating said leading ticket from said stream of tickets along a leading line of weakness between said leading ticket and a next following ticket (manually accessible outlet means for receiving the separated ticket; and

manually accessible outlet means for receiving the separated ticket.

a
a 31. Apparatus according to claim 30, wherein said separation means includes a *movably* *edged* dull edge, bursting blade *manually* mounted adjacent a predetermined bursting position along said path, holding means for holding said stream of tickets against substantial deflection from said path at said bursting position and bursting blade drive means for bringing said bursting blade into bursting contact with said stream of tickets at said bursting position to burst said leading ticket from said next following ticket. *B*

32. Apparatus according to claim 31, wherein said separation means includes feed alignment means for controlling said transport means to bring said leading line of weakness to said bursting position.

33. Apparatus according to claim 32, wherein said alignment means includes sensor means for detecting a present position of said leading ticket relative to said bursting position,

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a
a
^{*determining*}
 means for determining a transport direction and a displacement distance necessary to bring said leading line of weakness to said bursting position and transport control means ^{*for*} generating a transport control signal indicative of said transport direction and displacement distance, said transport means being responsive to said transport control signal for transporting said stream of tickets in said transport direction by said displacement distance.

Sub 18
^{*34*} Apparatus according to claim ^{*33*}, wherein said transport control means is responsive to transportation of said stream of tickets by a predetermined incremental distance to generate a transport pulse, said determining means calculates an integral number substantially equal to said displacement distance divided by said incremental ^{*distance*} distance, and said transport control means permits transport by said transport means during generation of said number of said transport pulses to bring said leading line of weakness to said bursting position.

32
^{*10*} ^{*35*} Apparatus according to claim ^{*34*}, wherein said transport means includes code wheel means for generating said transport pulses.

B
^{*11*} ^{*36*} Apparatus according to claim ^{*35*}, wherein said sensor means detects a leading edge of said leading ticket and said alignment means includes memory means for memorizing a length of said leading ticket.

^{*12*} ^{*37*} Apparatus according to claim ^{*36*}, wherein all said tickets have a selected uniform length.

^{*13*} ^{*38*} Apparatus according to claim ^{*37*}, further comprising data entry means for entering said uniform length into storage in said memory means.

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~~14~~39. Apparatus according to claim ~~38~~¹³, wherein said determining means calculates said number once in response to entry of said uniform length and stores said number in said memory means, said determining means thereafter supplying said stored number to said transport control means for each ticket.

~~14~~40. Apparatus according to claim ~~30~~⁸, wherein said ticket storage means includes a door which may be opened to selectively place tickets in said ticket storage means and remove tickets therefrom and access detector means for detecting and counting each opening of said door.

41. Apparatus according to claim 30, wherein said tickets are lottery tickets.

~~10~~42. Apparatus according to claim ~~30~~⁸, further comprising imprinter means for printing vendor identification data on each said ticket.

~~17~~43. Apparatus according to claim ~~42~~¹⁴, wherein said vendor identification data includes a name and address of a vendor associated with said apparatus.

~~14~~44. Apparatus according to claim ~~42~~¹⁴, wherein said imprinter means is located adjacent said path upstream of said bursting position.

~~19~~45. Apparatus according to claim ~~44~~¹⁵, wherein said imprinter means includes a stamper roller bearing an impression of said vendor identification data and an opposed, closely spaced pressure roller adapted to drivingly receive said stream of tickets therebetween, and an inker roller in rolling contact with said stamper roller, motion of said stream of tickets by said transport means causing said stamper, inker and pressure rollers to rotate so as to bring

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said impression into inked contact with each said ticket at a predetermined position thereon.

Sub 11 46. A method of preventing unauthorized distribution of valuable items, comprising the steps of:

storing a plurality of lottery tickets in an enclosed storage area within said unit;

accessing the interior of said storage area at selected times to permit deposit and removal of tickets therein;

detecting each access to said interior of said storage area; and

memorizing each said detected access.

47. A method according to claim 46, wherein said valuable items are instant lottery tickets.

Sub 11 48. Apparatus for dispensing lottery tickets, comprising:

a box-like module including an interior storage area within which lottery tickets may be stored prior to dispensing;

normally closed door means openable for accessing said interior storage area to permit deposit and removal of tickets therein;

detector means for detecting each opening of said door means;

memory means for memorizing each said detected opening.

49. In a system for distributing lottery tickets from a plurality of remotely located ticket dispensing units assigned to respective vendors, apparatus for identifying said vendors, comprising:

ticket storage means for storing a plurality of

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said lottery tickets;

feed means for feeding said lottery tickets from
said ticket storage means to a dispensing position;
and

printer means located adjacent said path at a
position prior to said dispensing position for
printing vendor identification data on each said
ticket.

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ABSTRACT OF THE DISCLOSURE

A system and method for distributing lottery tickets includes a large number of remote, ticket-dispensing units which are connected intermittently, e.g., once each day or week to a central computer. The units record the numbers of tickets sold and transmit the sales data to the central computer, which in turn performs all the necessary accounting functions. Sales reports and invoice data may be sent by the central computer to each unit for printing, which avoids the need to mail the reports/invoices. The tickets are stored in fan-fold form and are burst, rather than cut, apart for dispensing. The tickets are dispensed at one end of the unit which faces the customer. A control panel for the vendor is located at the opposite end. Tickets of different length may be dispensed with an imprint of the vendor's name.

As Original Filed

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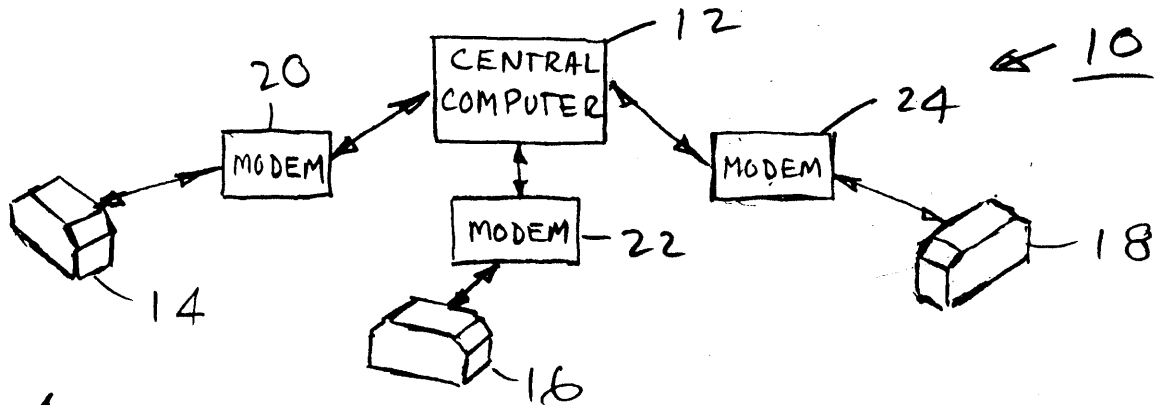


FIG. 1

FIG. 8A

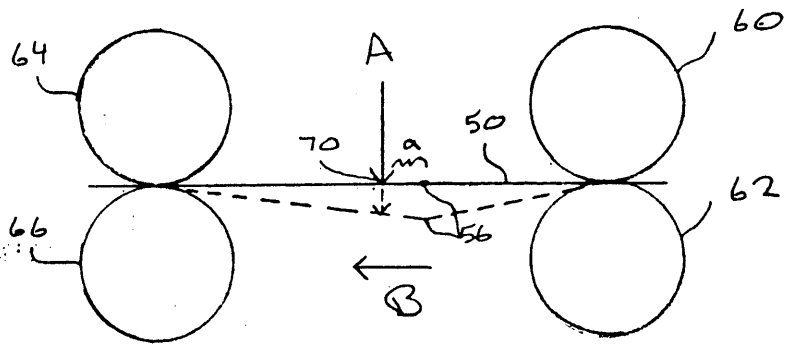
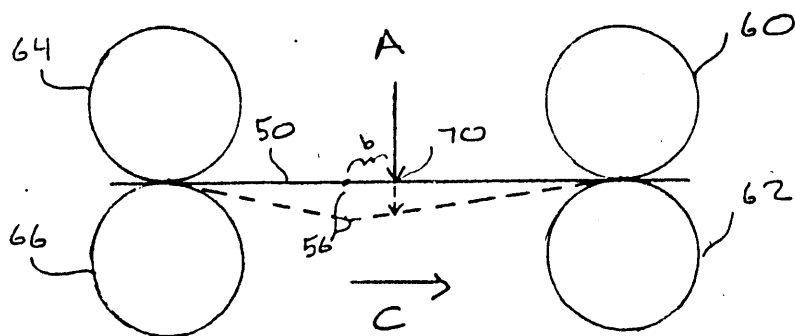


FIG. 8B



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REPORT FORMAT

FIG. 2A

 DAILY SALES RPT
 FOR 00/00/00

AGENT #	000000
MACH #	00000000
SALES	\$0000.00
PAID	\$000.00
NET	\$0000.00
SE	00

FIG. 2B

 WEEKLY SALES RPT
 FOR W/E 00/00/00

AGENT #	000000
MACH #	00000000
SALES	
PAID	
NET	
SE	

FIG. 2C

 WEEKLY INVOICE
 FOR W/E 00/00/00

AGENT #	000000
MACH #	00000000
SALES	\$0000.00
PAY	\$000.00
COMM	\$000.00
NET DUE	\$0000.00

FIG. 2D

 CURRENT SALES

00/00/00	0000:00
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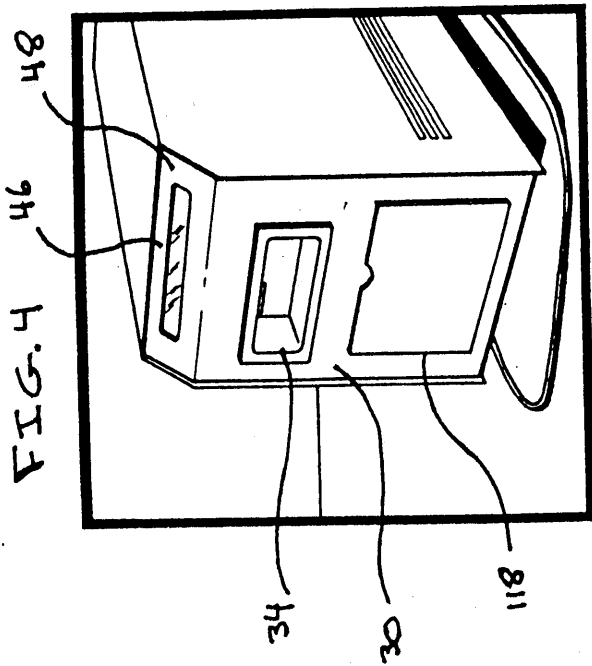
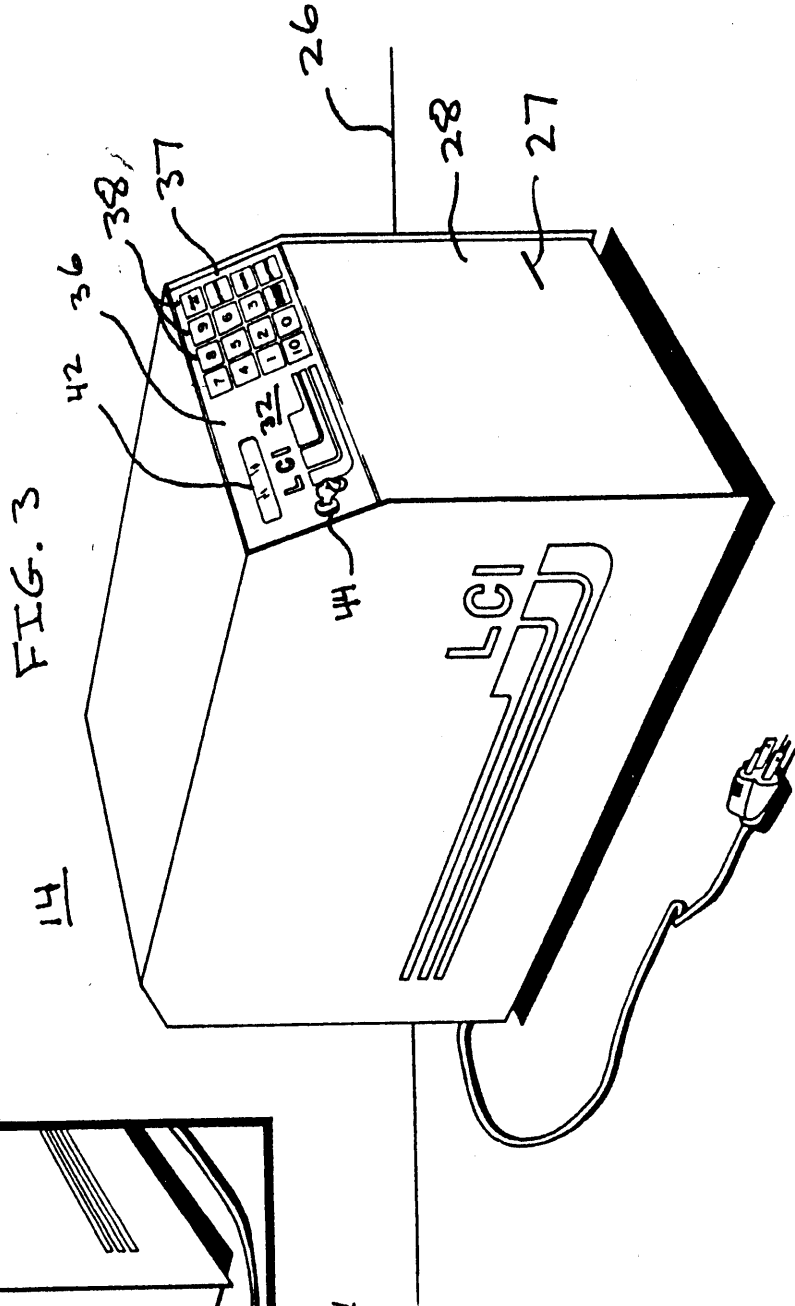
AGENT #	000000
MACH #	00000000
FOR CURRENT DAY	
SALES	\$0000.00
PAID	\$000.00
NET	\$0000.00
SE	00

FOR THIS REPORT

SALES	\$0000.00
PAID	\$000.00
NET	\$0000.00
SE	00

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